



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,239	08/27/2003	Steve Hayes	3413.001	6020
30589	7590	05/26/2006		
DUNLAP, CODDING & ROGERS P.C. PO BOX 16370 OKLAHOMA CITY, OK 73113			EXAMINER CARRILLO, BIBI SHARIDAN	
			ART UNIT 1746	PAPER NUMBER
DATE MAILED: 05/26/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/649,239	Applicant(s) HAYES ET AL.	
	Examiner Sharidan Carrillo	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Step e of claim 1 is indefinite because it is unclear where the aqueous cleaning solution is being directed to after leaving the mold receiving chamber of the cleaning vessel. The examiner considers "passing" to be equivalent to the term "transporting", as defined by Webster's Dictionary. Therefore, the claim is indefinite because it is unclear where the aqueous cleaning solution is being transported to after leaving the mold receiving chamber. The examiner suggests using the term "removing". The limitations of passing the paraffin containing aqueous solution by the upper ends of the baffles and passing the cleaning solution from the tank, as recited in claims 5 and 13 are indefinite for similar reasons to that of claim 1. Claims 8 and 14 are indefinite for similar reasons.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Hirano et al. (5250117).

On page 2, paragraph 5 of the instant specification, applicant admits that it is well known in the art to clean a tissue mold after the paraffin encased tissue specimen is removed from the mold. Paragraph 5 teaches that it is conventional in the art to clean the molds using a heated solvent. Applicant's admission teaches that it is well known and desirable to clean tissue embedded molds after use, but fails to teach the specific method steps as recited in claim 1.

Hirano teaches a degreasing cleaning method of cleaning a mold in order to

remove paraffin. In reference to claim 1, Hirano teaches immersing the mold W in a cleaning vessel 23, heating the aqueous cleaning solution, maintaining the mold in the heated solution for a selected period of time, wherein at least a portion of the paraffin melts to produce a paraffinic containing aqueous cleaning solution, passing the cleaning solution to an overflow tank and a water purification unit 11 (col. 3, lines 15-25). Hirano teaches melting the paraffin since col. 1, lines 65-68 teaches that the temperature of the water is heated to soften the deposit on the article. Col. 1, lines 53-55 teaches that oil and fat adhering to the article to be cleaned is removed from the article with the cleaning agent and forms liquid droplets. Col. 5-6 bridging teaches heating the sample until the solid changes to a liquid form.

It would have been obvious to a person of ordinary skill in the art to have modified the admission of the prior art to include the specific steps as taught by Hirano, for purposes of effectively softening and removing paraffinic contaminants from a mold.

Applicant's admission of the prior art in view of Hirano teaches the invention substantially as claimed with the exception of a chamber of a cleaning vessel and repeating the cleaning steps. However, it would have been notoriously well known and conventional in the art to employ baskets, cassettes, work holders, as a means of supporting an object to be cleaned. Additionally, it would have been well within the level of the skilled artisan to repeat the cleaning steps as needed in order to effectively remove contaminants from the substrate surface, the repetition being dependent on the amount of contaminants present on the substrate surface.

7. Claims 2-3 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Hirano et al. (5250117), as applied to claims 1 and 8-9, as described in paragraph 6 above, and further in view of Gamache et al. (6432215).

In reference to claims 2 and 10, applicant's admission of the prior art in view of Hirano teach the invention substantially as claimed with the exception of agitation of the cleaning solution. Gamache teaches a method of removing wax from components. In col. 1, lines 15-25, Gamache et al. teach that it is conventional and notoriously well known in the art to remove wax by immersing in a solvent in combination with agitation. Additionally, the use of agitation to enhance cleaning is notoriously well known in the cleaning art. It would have been obvious to have modified the modified method of Applicant's admission to include agitation, as taught by Gamache, for purposes of enhancing the removal of contaminants from the substrate surface. In reference to claims 3 and 11, refer to the teachings of Hirano.

8. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admission of the prior art in view of Hirano et al. (5250117), as applied to claims 1 and 8-9, as described in paragraph 6 above, and further in view of Zhang (6632598).

Applicant's admission of the prior art in view of Hirano teach the invention substantially as claimed with the exception of introducing a surfactant into the aqueous cleaning solution. Zhang teaches a deparaffinic composition comprising a surfactant for removing or dewaxing paraffin based contaminants (Abstract). It would have been obvious to a person of ordinary skill in the art to have modified the modified method of Applicant's admission of prior art to include a surfactant, as taught by Zhang since surfactants are commonly used in deparaffinic compositions.

Allowable Subject Matter

9. Claims 5-7 and 13-15 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and if rewritten to overcome the rejection, under 35 U.S.C. 112, second paragraph.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach a tank provided with a plurality of baffles, heating the lower end of the baffles to a temperature at least the melting point of the paraffin, maintaining an upper end of the baffles at a temperature below the melting point of the paraffin, passing the paraffin containing aqueous solution or paraffin dissolving solvent by the upper ends of the baffles where the paraffin in the paraffin containing aqueous solution or paraffin dissolving solvent solidifies on the upper ends of the baffles, thereby separating the paraffin from the paraffin containing solution or dissolving solvent solution to produce a treated aqueous cleaning solution. .

11. The rejection of the claims, under 112, first paragraph, is withdrawn, in view of the corrections made by applicant.

12. The rejection of the claims, under 112, second paragraph, is maintained for the reasons set forth above.

13. The rejection of the claims as being unpatentable over Reinhardt et al. is withdrawn in view of arguments presented by applicant.

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mazzanti teaches regeneration of mould. Lapointe teaches a denture mold dewaxer. Yamamoto et al. teach using hexane to extract paraffin. Schulz et al. teach a biological tissue cassette.

Art Unit: 1746

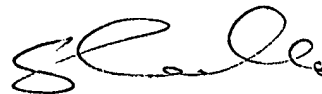
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on Monday-Friday, 6:00a.m-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharidan Carrillo
Primary Examiner
Art Unit 1746

bsc



SHARIDAN CARRILLO
PRIMARY EXAMINER